Guam Early Hearing Detection and Intervention Project (Guam EHDI)

State Report

PACIFIC Pre-EHDI Meeting
March 3, 2012, St. Louis, Missouri
Reflections.. Where We’ve Been!!
10 Years with Guam EHDI!
Guam

- Hospitals
  - GMHA - 2500 Births a Year
  - US Naval Hospital – 500 births

- Sagua Managu Birthing Center – 500 births
## Initial Hearing Screening
(GMHA and Sagua Mañagü)

### Average screen age = 1.9 days

<table>
<thead>
<tr>
<th></th>
<th>Total Births (Vital Statistics)</th>
<th>Total Births (GMHA and Sagua Managü)</th>
<th>Total Screened</th>
<th>Total FIS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2011</strong></td>
<td>3301</td>
<td>2788</td>
<td>2752</td>
<td>126</td>
</tr>
</tbody>
</table>

- **Total Screened**: 2752
- **99%**
- **5%**
## Percent LFU at Outpatient Rescreen

<table>
<thead>
<tr>
<th>Description</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Needing Rescreen</td>
<td>126</td>
<td>94</td>
</tr>
<tr>
<td>Total Rescreened</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Total Relocating</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>Average rescreen age = 1.7 months</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: The bar graph illustrates the data distribution from 2011 to 2012.*
### Percent LFU at DAE

<table>
<thead>
<tr>
<th>Total Needing DAE</th>
<th>Total Receiving DAE</th>
<th>Total Refused Services</th>
<th>Total LFU</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Average Age at DAE = 2 months**

2011: 7 Needing, 2 Receiving, 2 Refused, 3 LCMS
Infants Receiving EI Services

1 Infant Diagnosed with a Hearing Loss in 2011

- DAE on 12/1/2011
- Received IFSP on 11/29/11
- Still in process for receiving hearing amplification
  - Currently still has fluid in ear
Professional Development

• Partnership with Boys Town Research Hospital - Dr. Cathy Carotta

• Need Assessment for early intervention staff and preschool special education teachers

• Created professional development training courses
Boys Town National Research Hospital Webinar Trainings

Hearing Loss 101: September 7-9, 2011

- Overview of hearing loss, audiology, and speech and language
- Audiology and Speech assessments
- Parent perspectives
- AT device checks
- Reviewed case profiles
Boys Town Training (continued)

Hearing loss 201: February 1-3, 2012

• Family-Centered & Auditory Skills Intervention
• Speech perception testing
• Functional auditory skills assessment
• Parent perspectives
• Views into the classroom
• Augmentative/Alternative communication
Parent Leadership Training
By Kat Lowrance, Consultant from Parent Information & Training Centers
September 27 – 29, 2011

• Understanding IFSP and how to partner with professionals
• Empowerment and effective leadership
• Sensitivity to cultural differences
• Effective communication skills
• Navigating the system
• Taking care of yourself
Guam EHDI-Quality Assurance Initiative

- Guam EHDI has drafted 2 primary publications for monitoring quality assurance for the Guam ChildLink Data Tracking and Surveillance:
  - Guam EHDI Quality Assurance Manual
  - Guam EHDI Annual Quality Assurance Annual Report
Guam EHDI QA Manual

• Has 3 sections:
  – (1) Defining Quality,
  – (2) Measuring Quality
  – (3) Improving Quality

• **Section 1:** Defines quality and quality assurance for tracking and surveillance (Guam ChildLink), including a QA model, standards and procedures, and description of quality audits

• **Section 2:** Describes how quality monitoring will be completed, including verification and validation activities, baselines, and tools and resources

• **Section 3:** Provides guidelines on how to improve quality, including problem definition, developing solutions and action for quality improvement, changing procedures, implementing and evaluating quality improvement measures, and ends with a calendar for conducting QA Audits and reporting

• Still in DRAFT as new tools, information and requirements are defined
The Guam EHDI Quality Assurance Report

• First report covers June 1, 2008 to June 30, 2011
• Poses 7 QA questions which are directly tied to the 7 key components or standards for successful EHDI Program
• The QA Report includes 10 reports which respond to the 7 QA questions
Example: QA Question #1 & Report

QA Question

Were all babies born on Guam screened for hearing loss before 1 month of age?

QA Question:

1. Are data on number of births in Guam ChildLink accurate and of high quality?
2. Are data on number of births valid and reliable?

QA Report #1

QA Report #1: Number of births on Guam ChildLink is cross-checked with Birth Site Logbook data and Office of Vital Records (pending)

Validity is determined by comparing any discrepancies between Guam ChildLink data and Birthsite Logbook data -Target: 90% accuracy or better with discrepancy error of 5 or less for each month within the funding year.

Reliability is determined by calculating a Pearson’s correlation coefficient comparing the data from the databases-Target: .90 or better
<table>
<thead>
<tr>
<th>Month</th>
<th>Number of birth reported in GMHA BIRTH LOGBOOK (excludes expired infants)</th>
<th>Number of births reported in GUAM CHILDLINK</th>
<th>Discrepancy</th>
<th>Percentage of Accuracy</th>
<th>COMMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>July, 2008</td>
<td>207</td>
<td>205</td>
<td>+2</td>
<td>99%</td>
<td>Excellent</td>
</tr>
<tr>
<td>August</td>
<td>212</td>
<td>214</td>
<td>-2</td>
<td>&gt;100%</td>
<td>Guam ChildLink Data Exceeds Number of Births Reported by GMHA</td>
</tr>
<tr>
<td>September</td>
<td>234</td>
<td>242</td>
<td>-16</td>
<td>&gt;100%</td>
<td>Significant discrepancy noted here</td>
</tr>
<tr>
<td>October</td>
<td>258</td>
<td>254</td>
<td>+4</td>
<td>98%</td>
<td>Excellent</td>
</tr>
<tr>
<td>November</td>
<td>226</td>
<td>230</td>
<td>-4</td>
<td>&gt;100%</td>
<td>Guam ChildLink Data Exceeds Number of Births Reported by GMHA</td>
</tr>
<tr>
<td>December</td>
<td>224</td>
<td>221</td>
<td>+3</td>
<td>99%</td>
<td>Excellent</td>
</tr>
<tr>
<td>January 2009</td>
<td>222</td>
<td>219</td>
<td>+3</td>
<td>99%</td>
<td>Excellent</td>
</tr>
<tr>
<td>February</td>
<td>201</td>
<td>199</td>
<td>+3</td>
<td>99%</td>
<td>Excellent</td>
</tr>
<tr>
<td>March</td>
<td>207</td>
<td>203</td>
<td>+4</td>
<td>98%</td>
<td>Excellent</td>
</tr>
<tr>
<td>April</td>
<td>202</td>
<td>200</td>
<td>+2</td>
<td>98%</td>
<td>Excellent</td>
</tr>
<tr>
<td>May</td>
<td>201</td>
<td>201</td>
<td>0</td>
<td>100%</td>
<td>Guam ChildLink Data Exceeds Number of Births Reported by GMHA</td>
</tr>
<tr>
<td>June</td>
<td>181</td>
<td>184</td>
<td>-3</td>
<td>&gt;100%</td>
<td>Guam ChildLink Data Exceeds Number of Births Reported by GMHA</td>
</tr>
<tr>
<td>Annual Total</td>
<td>2,575</td>
<td>2,572</td>
<td>+3</td>
<td>99%</td>
<td>Excellent</td>
</tr>
</tbody>
</table>

Validity | 99% | Reliability Correlation Coefficient | .98 | Reliability correlation coefficient significantly above .90
## Key QA Questions and QA Corresponding Reports

<table>
<thead>
<tr>
<th>Count</th>
<th>Question</th>
<th>Corresponding Reports</th>
</tr>
</thead>
</table>
| 1     | Were all newborns on Guam screened for hearing loss before 1 month of age? | • QA Report #1: Number of Births  
• QA Report #2: Hearing Screening, Rescreening, and Lost to Follow Up |
| 3     | Did all infants who failed hearing screening and rescreening, have diagnostic evaluations before 3 months of age? | • QA Report #3: DAEs and Lost to Follow Up  
• QA Report #4: GEHDI Codes for Infants Pending DAE |
| 6     | Did all infants identified with hearing loss receive appropriate medical, audiologic, and educational intervention services before 6 months of age? | • QA Report #5: Early Intervention Services |
|       | **Medical Home**                                                         | • QA Report #6: Medical Home |
|       | **Tracking Surveillance System**                                         | • QA Report #7: Status of Guam ChildLink |
|       | **Culturally Competent Family Support**                                  | • QA Report #8: Culturally Competent Family Supports |
|       | **Continuous Monitoring & Evaluation**                                  | • QA Report #9: Aggregate Summaries of Overall Performance  
• QA Report #10: Summary & Recommendations |
Challenges to QA Effort

- Guam does not have a Electronic Birth Certificate (EBC) system in place, Office of Vital Records requires time to obtain monthly/annual data requests
- USNaval Hospital does not report data to Guam ChildLink
- QA for EDHI data management for tracking and surveillance is different from QA for EHDI services
- Usefulness of QA reports are primarily for EHDI team, but requires input from all stakeholders
New Directions for QA Effort

• CDC recommends that Data Quality Evaluation be conducted by looking at the **process evaluation** embodied in the logic model and **outcome evaluation** embodied in the outcome evaluation and clearly linked between the work plan, logic model, and evaluation plan.

• HRSA recommends quality assurance measures using data gathering tools such as interviews, surveys, and on-site visits at various levels to improve the quality of care for infants identified with hearing loss.

• Guam EHDI will continue to develop improved QA measures and recommend areas for improvement based on QA reporting.
Guam EHDI’s Highlights
Teleaudiology Pilot Project
Guam EHDI on the GO...

• Guam EHDI support to DPHSS – Office of Vital Statistics
  – Working with National Association for Public Health Statistics and Information Systems
  – Development of the STEVE-ER
  – Signed MOA – June 2011
  – Piloting Electronic Birth Certificate
  – Full implementation SOON – we pray!!
Guam EHDI on the GO...

• Community Outreach
  – Imunization Clinic, DPHSS
  – MCH Healthy Mothers, Healthy Babies
  – Prenatal Mother’s orientation, GMHA and Saguas

• Project Tinchiuhon – Guam’s Early Childhood Comprehensive System
  – Power Play
  – Universal “Referral” Form

• Guam Early Intervention Services
  – Child Find
Next Steps

• Training with GEIS staff – to reduce the LFU
• Grand rounds with Pediatric and Family Practice Physicians, and other health care providers on Guam’s Teleaudiology Pilot
• Boys Town On-site Training April 23-27, 2012 – provide coaching and mentoring
Thank you for coming 😊